

WHAT IS CLAIMED IS

1. A supporting disk for a surface grinding wheel, comprising
a glass-fiber reinforced phenolic resin body, which includes
5 one of an upper covering layer (6) of a textile glass fabric (9) and a glass-
yarn layer (10);
an intermediate layer (7) of a fiber mat (14); and
one of a lower covering layer (8) of a textile glass fabric (9) and a glass-
yarn layer (10).
- 10 2. A supporting disk according to claim 1, wherein the intermediate layer
(7) is a fiber fleece.
3. A supporting disk according to claim 1, wherein the intermediate layer
15 (7) is a fabric of a volume enlarged by needling.
4. A supporting disk according to claim 1, wherein the intermediate layer
(7) is comprised of natural fibers.
- 20 5. A supporting disk according to claim 1, wherein the intermediate layer
(7) is comprised of synthetic organic fibers.
6. A supporting disk according to claim 1, wherein the intermediate layer
(7) is comprised of textile glass fibers.
- 25 7. A supporting disk according to claim 1, wherein the upper covering
layer (6), the intermediate layer (7) and the lower covering layer (8) are
sewn together.

8. A supporting disk according to claim 1, wherein the textile glass fabric (9) and the glass-yarn layer (10) are comprised of warp threads (11) and weft threads (12) which are glass-fiber rovings.

5 9. A supporting disk according to claim 1, wherein the intermediate layer (7) is thicker than the upper covering layer (6) and the lower covering layer (8).

10 10. A supporting disk according to claim 1, wherein the upper covering layer (6) and the lower covering layer (8) have a higher tensile strength than the intermediate layer (7).

15 11. A surface grinding wheel comprising a supporting disk (1) and abrasive laminae (2) fixed to the supporting disk (1), the supporting disk (1) comprising
a glass-fiber reinforced phenolic resin body, which includes
one of an upper covering layer (6) of a textile glass fabric (9) and a glass-yarn layer (10);
an intermediate layer (7) of a fiber mat (14); and
20 one of a lower covering layer (8) of a textile glass fabric (9) and a glass-yarn layer (10).

25 12. A surface grinding wheel according to claim 11, wherein the intermediate layer (7) is a fiber fleece.

13. A surface grinding wheel according to claim 11, wherein the intermediate layer (7) is a fabric of a volume enlarged by needling.

14. A surface grinding wheel according to claim 11, wherein the intermediate layer (7) is comprised of natural fibers.

15. A surface grinding wheel according to claim 11, wherein the intermediate layer (7) is comprised of synthetic organic fibers.

16. A surface grinding wheel according to claim 11, wherein the intermediate layer (7) is comprised of textile glass fibers.

10 17. A surface grinding wheel according to claim 11, wherein the upper covering layer (6), the intermediate layer (7) and the lower covering layer (8) are sewn together.

15 18. A surface grinding wheel according to claim 11, wherein the textile glass fabric (9) and the glass-yarn layer (10) are comprised of warp threads (11) and weft threads (12) which are glass-fiber rovings.

19. A surface grinding wheel according to claim 11, wherein the intermediate layer (7) is thicker than the upper covering layer (6) and the lower covering layer (8).

20 20. A surface grinding wheel according to claim 11, wherein the upper covering layer (6) and the lower covering layer (8) have a higher tensile strength than the intermediate layer (7).